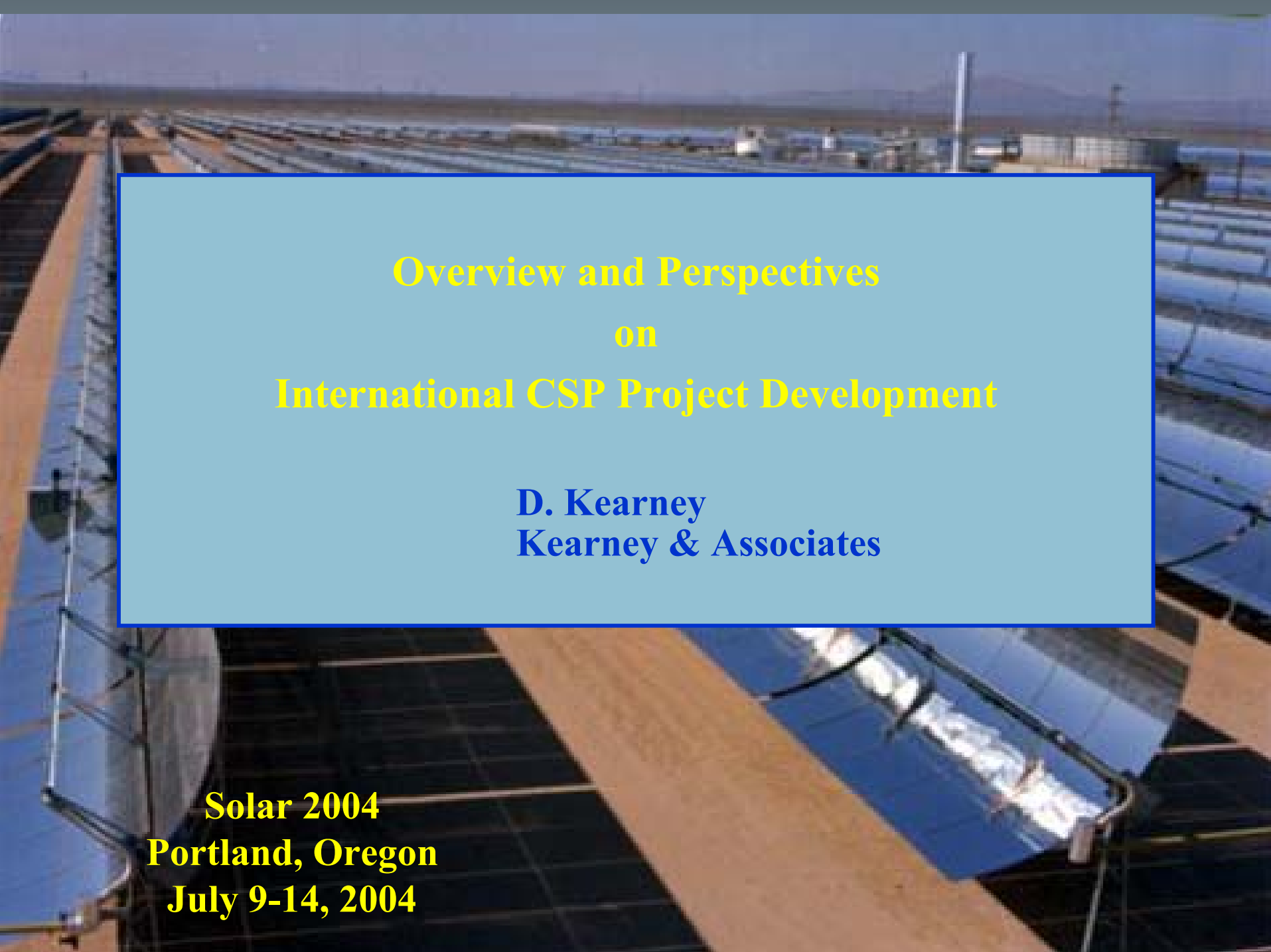


Overview and Perspectives
on
International CSP Project Development

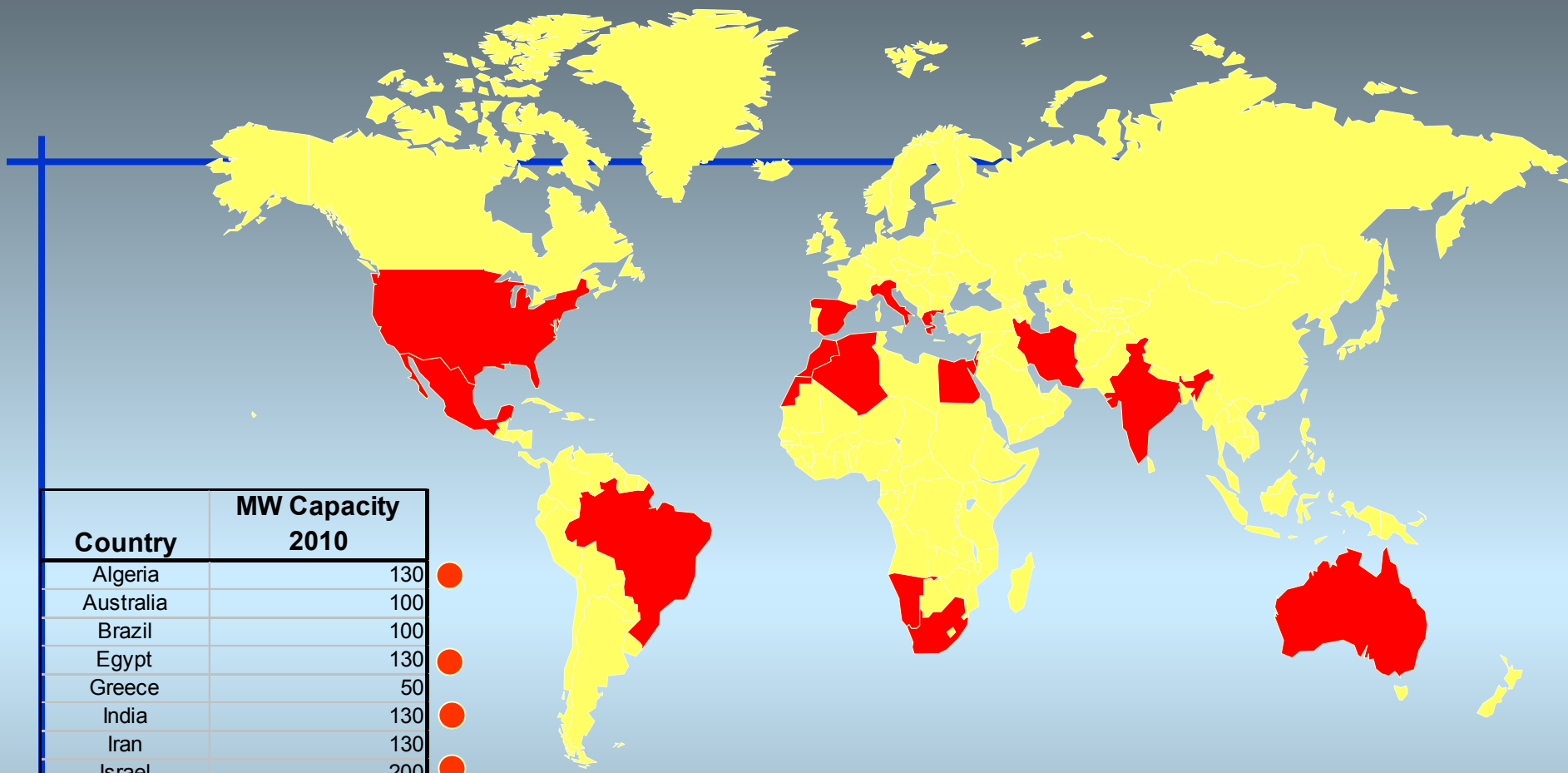
D. Kearney
Kearney & Associates

Solar 2004
Portland, Oregon
July 9-14, 2004

CSP Technologies

International Market Factors

- Market aggregation
- Incentives
- Favorable financing
- Policy changes
- Electricity production must be high to seriously impact reduction of green house gases
- Ultimate price goals tied to GW-scale deployment in 10-100 GW range



Country	MW Capacity 2010
Algeria	130
Australia	100
Brazil	100
Egypt	130
Greece	50
India	130
Iran	130
Israel	200
Italy	100
Jordan	130
Mexico	300
Morocco	150
Namibia	100
South Africa	100
Spain	200
United States	200
TOTAL	**2250**

CSP Market Areas and Lead Near-Term Opportunities

Current Project Development

- United States
  - Nevada 50 MWe trough project
  - Arizona 1 MWe trough project
  - 1000 MWe SW initiative
- Spain
  - Two 50 MWe trough projects
  - Power tower development

Current Project Development

- Global Environment Facility (GEF) Projects
  - India – Egypt – Morocco – Mexico
  - $50M grants for gap between solar plant and conventional fossil plant
  - Initiated in 1995-2000 timeframe
  - All ISCCS configurations
  - Progress has been slow
  - Consideration given to trough or tower technologies, with about 30-40 MWe solar contribution. Trough predominant in feasibility studies.

Current Project Development

- South Africa
  - Conducted assessment of trough and tower options
  - Moved forward with feasibility studies on 100MWe power tower option
  - Next phases: Business Plan and Investment Plan
  - Decision on Business Plan expected July 2004
  - Also tested 25 kW SES dish-engine prototype; testing to conclude by September 2004
- Israel
  - Ministry of National Infrastructure supports CSP implementation.
  - National goal: 2% renewables by 2007; 5% by 2016
  - Development plan of national electricity system includes 100 MWe CSP in Negev Desert area by 2010, with expansion plans to 500 MWe
  - Feed-in laws to be implemented

Current Project Development

- Other countries with CSP
- plans or investigation:
  - Algeria
  - Iran
  - Australia
  - Greece
  - Jordan
  - Italy

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Details

- Egypt ISCCS; 150 MWe total; 30 MWe solar; EPC to be signed 6/06; trough
- Mexico ISCCS; 285 MWe total; 40 MWe solar; trough; near Mexicali; 4% annual
- Morocco 12/07 startup; ISCCS; trough; 228 MW total; solar fraction 3.5% annual
- India ISCCS; trough